AMERICAN PUBLIC GAS ASSOCIATION

January 6, 2014

Ms. Brenda Edwards
U.S. Department of Energy, Building Technologies Office, Mailstop EE–2J
1000 Independence Avenue, SW
Washington, DC 20585–0121

RE: Rulemaking for Residential Furnace Fans Energy Conservation Standards, EERE–2010–BT–STD–0011

Dear Ms. Edwards:

The American Public Gas Association (APGA) is pleased to submit comments to the U.S. Department of Energy (DOE) in response to the Rulemaking for Residential Furnace Fans Energy Conservation Standards, EERE–2010–BT–STD–0011.

APGA is the national association for publicly-owned natural gas distribution systems. There are approximately 1,000 public gas systems in 37 states and over 700 of these systems are APGA members. Publicly-owned gas systems are not-for-profit, retail distribution entities owned by, and accountable to, the citizens they serve. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies that have natural gas distribution facilities. For more information on APGA and its members, please visit www.apga.org.

APGA strongly supports the delineation of separate product classes for condensing and non-condensing furnace fans. As identified in the proposal, there are ten classes of furnaces fans that would receive fan energy ratings. APGA commends DOE for its recognition of the need for separate product classes that reflect factors such as application-specific design differences. APGA also strongly supports the use of separate products classes for non-condensing and condensing furnaces.

In the Federal Register announcement of this NOPR was a citation from The Energy Policy and Conservation Act (EPCA) of 1975 (Public Law 94-163), as amended by the Energy Policy Act of 2005 (EPACT 2005)(Public Law 109-58) and the Energy Independence and Security Act of 2007 (EISA 2007)(Public Law 110-140), which states "…the Secretary shall consider and prescribe energy conservation standards or energy use standards for electricity used for purposes of circulating air through duct work."

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APGA is concerned as to why DOE did not include coverage of fan motors within heat pumps in the NOPR. APGA is not aware of any explanation from DOE in regard to why heat pump fan motors are excluded and how this exclusion is in the best interests of the American public.

APGA is concerned that this exclusion potentially creates an uneven playing field as the NOPR could lead to higher costs for furnaces but not electric heat pumps. This could create an incentive for consumers to fuel switch from gas furnaces to heat pumps which also contribute to additional fuel switching from gas water heating to electric water heating.

Natural gas is the cleanest, safest, and most useful of all fossil fuels. The inherent cleanliness of natural gas compared to other fossil fuels, as well as strong domestic supply projections and superior efficiency of natural gas equipment, means that substituting gas for the other fuels will reduce the emissions of the air pollutants that produce smog, acid rain and exacerbate the "greenhouse" effect. In addition, the overall natural gas delivery system, from extraction and production, through processing, transportation, and delivery to end use is relatively efficient – approximately 92 percent of the energy produced reaches the consumer as usable energy. APGA is strongly opposed to federal policies whether they occur through regulation or legislation, which would promote, either consciously or unconsciously, fuel switching away from natural gas appliances.

APGA is aware that concerns were raised at the December 3rd public meeting, specifically by manufacturers, that the simultaneous development of test procedures for residential furnace fans and energy efficiency standards for furnace fans as proposed by the rule will lead to major practical difficulties in review and comment on the proposed efficiency standards. Manufacturers have communicated that they cannot fully verify the justification and efficacy of the energy efficiency standards without having the final test procedures in hand and with an understanding of how major comments on the preceding supplemental notice of proposed rulemaking (SNOPR) have been addressed. This issue is further complicated by the fact that there are currently no test procedures for furnace fans so manufacturers must work from draft procedures. APGA urges DOE to release a SNOPR by the end of the first quarter of 2014, in part to address additional issues identified at the workshop and comments submitted on the NOPR through the current review and comment cycle.

As discussed at the December 3, 2013 public meeting on the NOPR, mitigation of total harmonic distortion (THD) associated with high-efficiency electronic commutative motors (ECM) was raised as a cost of requiring ECM motors that is not addressed by the technical support document (TSD). Unmitigated high levels of THD can cause electric distribution system safety hazards including overheating of the neutral wiring of

the system. Furnace manufacturers questioned whether or not installation of harmonic filters was included in the life cycle cost (LCC) analysis of efficiency proposals incorporating ECM motors. DOE's response was that this cost was not included. DOE should include this added cost in the LCC analysis and recalculate the economic justification of design options incorporating ECM motors. As mentioned by electric industry representatives, proprietary data developed by the electric industry on THD issues was not made available for this rulemaking. However, it is likely that it will be available for future rulemakings on competing products including electric heat pumps and air conditioners, and the added cost of harmonic filters will be incorporated in those rulemakings. Unbalanced treatment of these electrical system costs will further place gas-fired furnace systems at an installed cost disadvantage.

APGA also has concerns that the utilization of furnace fan life for condensing and non-condensing gas-fire furnaces of 23.6 years ("considered to be equivalent to furnace lifetimes," according to the TSD, Chapter 8, Section 8.2.2.6) in the LCC analysis is unrealistic and biased against gas-fired furnaces. No justification is offered for this unrealistically long life of a motor-driven system, and conventional product data indeed suggests much shorter lives. The LCC spreadsheet further suggests that 26.1 years was used for non-weatherized condensing and non-condensing furnaces (the longest life applied to any covered product in the NOPR). In contrast, 13.8 years was used for the LCC analysis of electric furnaces, the competing fuel furnace product. DOE should revise its LCC analysis to employ more realistic, documented furnace fan lives based on documented motor lives.

APGA thanks the Department of Energy for its consideration of these comments.

Respectfully submitted,

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